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Amendments to the Claims

Please cancel Claims 6-20. Please amend Claims 1-5, and 21. Please add new Claims 22-35. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (Currently Amended) A data engine located in a programmable pipeline processor for processing non-field delineated, streaming, application level input-database records received from a mass storage device, the data engine comprising:
  - a data parser configured to an interface, for receiving field delineated data from a field parser, the field parser connected to parse non-field delineated database records received from [[a]] streaming data source the mass storage device into the field-delineated data, under instructions from an external processing unit;
  - a field buffer that stores the field delineated data; and
  - at least one filter logic unit configured to receive field delineated database records from the database parser, and to filter the field delineated data by performing that performs at least one a field operation on the field delineated database records; and
  - an output tuple generator, configured to assemble filtered field delineated database records into an output tuple.
2. (Currently Amended) The data engine of A processor as in claim 1 wherein further comprising:
  - the filter logic further comprises a programmable memory that receives, as an address, field delineated data from the field buffer, wherein the programmable memory serves as a substitution table for field delineated database records, and wherein performing a field operation on the field delineated database records includes performing a field comparison on selected fields of the field delineated data.
3. (Currently Amended) A processor as in The data engine of claim 2 wherein the substitution table contains alternate character equivalents for a set of character data includes a data sting register.

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4 (Currently Amended) A processor as in claim 2 wherein the substitution table includes a data sting register.

~~the programmable memory includes multiple substitution tables that provide multiple character equivalents for a corresponding set of characters.~~

5. (Currently Amended) The data engine of A processor as in claim 2 wherein the comparison is a character field comparison.

~~the substitution table is used to map uppercase letters to their lowercase equivalents for substitution.~~

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Currently Amended) A method for processing non-field delineated streaming application level database records received in a programmable pipeline processor from a mass storage device, the method data source comprising:

receiving a non-field delineated data stream in a field buffer as an input data stream;

separating the input data stream into field delineated data under instruction from an external central processing unit; and

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sending field delineated data from the field buffer to at least one logic unit that performs at least one field operation on the field delineated data.

22. (New) The data engine of claim 1 wherein the output tuple assembled by the output tuple generator contains only selected data fields of the field delineated data.

23. (New). The data engine of claim 1 wherein the filter logic is further configured to filter the field delineated data by flagging a record for further processing.

24. (New) The data engine of claim 1 further comprising header storage configured to receive header and control data from the data parser and provide header data to the filter logic, wherein the filter logic is further configured to use header data to filter field delineated data.

25. (New) The data engine of claim 1 further comprising an ID processing module configured to receive header and control data, to identify the validity of field delineated data by processing an ID field in the header data of the field oriented data, and to provide the validity result to the tuple generator.

26. (New) The data engine of claim 25 wherein the ID field is a transaction ID.

27. (New) The method of claim 21 wherein filtering further comprises using a substitution table for field delineated data to perform a field comparison on selected fields of the field delineated data.

28. (New) The method of claim 27 wherein the substitution table comprises data-string register.

29. (New) The method of claim 27 wherein the substitution table includes a temporary register.

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30. (New) The method of claim 27 wherein the comparison is a character field comparison.

31. (New) The method of claim 21 wherein output tuple contains only selected data fields of the field delineated data.

32. (New) The method of claim 21 wherein filtering the filter field delineated data comprises: flagging a record for further processing.

33. (New) The method of claim 21 further comprising: using header storage data to filter field delineated data.

34. (New) The method of claim 21 further comprising: identifying the validity of field delineated data by processing an ID field in the header data of the field oriented data, wherein assembling the filtered data based on the validity of the field delineated data.

35. (New) The method of claim 34 wherein the ID field is a transaction ID.